Factors which influence the decision whether or not to prescribe: the dilemma facing general practitioners

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SUMMARY. In this study of the influences affecting general practitioners' decisions whether or not to prescribe, 69 principals and five trainees in general practice were asked about the factors that made these decisions difficult for them and the circumstances in which the decision caused them to feel uncomfortable. Discomfort was reported most frequently in prescribing for respiratory disease, psychiatric conditions and skin problems, though the range of problems mentioned was wide. The range of drugs for which the decision of whether or not to prescribe was difficult was also wide but psychotropic drugs, antibiotics, drugs acting on the cardiovascular system and non-steroidal anti-inflammatory drugs were most often mentioned. Patient factors said to be important included age, ethnicity, social class and education, the doctor's prior knowledge of the patient, the doctor's feeling towards the patient, communication problems, and the doctor's desire to try to preserve the doctor–patient relationship. Doctor specific factors included concerns about drugs, factors relating to doctors' role perception and expectations of themselves, uncertainty, peer influences, logistic factors, and the experience of medical or therapeutic misadventures.

The results of this study support earlier work on the influence of social factors on prescribing decisions and show that this influence affects the entire range of clinical problems. The results also reveal the importance of logistic factors. The overriding concern of doctors to preserve the doctor–patient relationship and the range of attitudes, perceptions and experiences of doctors that have a bearing on the decision to prescribe begin to explain the apparent irrationality of some general practitioner prescribing. In order to effect appreciable change in prescribing habits the influence of these non-clinical factors must first be understood and tackled.

Keywords: prescribing patterns; medical decision making; doctors' attitude; doctor–patient relationship.

Introduction

ALMOST since the inception of the National Health Service concern has been expressed at the variation in the volume and cost of prescribing in different parts of the United Kingdom and between practices and individual doctors.[1] Attempts to understand this variation have revealed that much prescribing in general practice cannot be accounted for on purely pharmacological grounds.[2,3] Prescribing initiatives have been launched at various times to try to improve the quality of general practitioner prescribing. Some initiatives, such as the introduction of the 'limited list' appear to have been cost driven, while others, such as the supply of independent drug information to prescribers seem to have been related to quality. Initiatives led by the profession, such as the promotion of formularies, have tended to focus more exclusively on quality, though any cost reductions that accrue are reported with some satisfaction.[4,5]

Attempts to influence prescribing behaviour have tended to concentrate on which drug should be prescribed rather than on whether or not to prescribe a drug at all. Thus, in the latest government scheme doctors have been set spending targets for prescribing (indicative amounts).[6] The document describing the scheme seems to anticipate that increased use of generic drugs, wider implementation of formularies and the supply of more independent information to general practitioners will bring about the desired cost containment.[6] This ignores the fact that, for individual family health services authorities, the average number of items prescribed per patient rather than the average cost of items prescribed is more closely associated with prescribing expenditure per capita.[7] From a cost point of view, and certainly from a quality point of view, the decision whether or not to prescribe, rather than what to prescribe, is more important.

This paper reports part of an interview study[8] that investigated general practitioners' decisions about whether or not to prescribe, focusing on the decisions that cause the doctor some discomfort. It is argued that a study of these difficult decisions will reveal the factors that influence doctors' decisions more generally. The aims of this part of the study were to ascertain whether or not all doctors experience discomfort when making decisions about prescribing and to discover the factors perceived by the doctors as giving rise to their feelings of discomfort.

Method

All principals in general practice on the medical list of a single family practitioner committee list in the north of England were contacted by letter and invited to participate in the study. Sixty nine of the 136 doctors (50.7%) agreed to be interviewed. In addition, five trainees in general practice were also recruited to the study at the time their trainer was being interviewed. The age, sex, place of qualification, number of qualifications, personal list size, practice list size, and practice location of the doctors were noted. Respondents were representative of a wide range of ages and practice situations and sizes, but younger doctors, women doctors, doctors with higher qualifications and doctors with smaller lists and more practice partners were all slightly over-represented in the sample relative to the family practitioner committee list as a whole. The interviews were conducted between March 1987 and February 1988 (by C B). The focused interview technique[9] was used and the schedule of questions is given in Appendix 1.

As is usual when using semi-structured interviews questions three to six were only asked where the answers to those questions were not volunteered spontaneously in reply to question two or where the reply to question two was incomplete. Interviews were tape-recorded and transcribed. Transcripts were analysed for the major themes in the doctors' replies using the approach to semi-structured interview material described by Whyte.[10] In addition, specific information on the drugs and medical conditions involved was enumerated.

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Results

One doctor completely misunderstood the purpose of the study and provided no coherent material for analysis. All of the remaining 73 doctors interviewed agreed that they had experienced discomfort arising from decisions they had made regarding whether or not to prescribe. For three of the doctors time did not permit all of the interview questions to be asked.

Drugs and conditions associated with discomfort among prescribers

While all doctors could cite instances where the decision of whether or not to prescribe was not related specifically to the drug involved, all of the doctors mentioned specific drug groups as being associated with some discomfort when it came to deciding whether or not to prescribe (Table 1). The categories used are those employed by the doctors and, hence, do not correspond to any existing system of drug classification. The range of drug groups mentioned was wide and no drug group was specifically mentioned as never being associated with discomfort when prescribing.

Table 1 also lists the major diseases and conditions mentioned by doctors as sometimes giving rise to some discomfort about whether or not to prescribe. As with the drugs, a wide range of conditions was mentioned.

Patient factors associated with discomfort among prescribers

Twenty five of the 70 doctors (35.7%) mentioned age as a factor associated with discomfort when prescribing. Both elderly patients and children were sources of discomfort (mentioned by 12 and nine doctors, respectively), though in the case of elderly people, two doctors noted experiencing less discomfort than when prescribing for children. Five doctors (7.1%) mentioned the patient's ethnic origin as relating to their discomfort about prescribing. Two of these doctors were more specific about the problem, one attributing the difficulty to higher levels of patient expectation and the other to cultural factors in the presentation of illness. Nine doctors (12.9%) commented that the social class of patients or a higher level of educational attainment were associated with discomfort about prescribing. However, the direction of the social class effect was inconsistent, both higher and lower social class being associated with discomfort. Eleven doctors (15.7%) said that patients with some extra knowledge of medical matters were more likely to cause discomfort when prescribing. This included health care professionals, their families and patients with long term conditions about which they knew a lot.

Twenty six of the doctors (37.1%) commented that how well the patient was known to them was associated with discomfort when prescribing. Once again the effect was inconsistent in direction. Fifteen doctors (21.4%) mentioned frequent attenders as a source of discomfort, 11 mentioned patients who were seen as untrustworthy or untruthful, seven mentioned so called 'heart-sink patients',[11] five mentioned patients who 'cruise' or try to play one doctor off against another, and one mentioned 'thick notes' patients.

Ten doctors spoke of patients they liked as causing them discomfort when prescribing, and two of patients who flattered them. Although only one doctor went so far as to say he actually did not like some patients, the words used by doctors to describe patients who made them uncomfortable when prescribing reveal a great deal of suppressed dislike (Table 2). Six doctors mentioned difficulties with the patient's general approach and seven doctors admitted having feelings of irritation towards certain patients.

Table 1. Drug groups and conditions mentioned as being associated with discomfort when prescribing.

	% of doctors mentioning drug/condition ($n = 70$)
Drug category	
Antibiotics	70.0
Benzodiazepines	44.3
Cardiovascular system drugs	25.7
Non-steroidal anti-inflammatory drugs	22.9
Tranquillizers	21.4
Antidepressants	20.0
Sleeping tablets	18.6
New drugs	17.1
Appetite suppressants	12.9
Unfamiliar drugs	11.4
Analgesics	11.4
Anti-ulcer drugs	10.0
Oral contraceptives	10.0
Hormone replacement therapy	8.6
Other symptomatic remedies	8.6
Tonics and vitamins	8.6
Cough medicines	7.1
Decongestants	7.1
Other	41.4
Condition	
Respiratory tract infection	
Unspecified	37.1
Viral infections	11.4
Sore throat	10.0
Catarrh	4.3
Psychiatric conditions	
Anxiety states	12.9
Unspecified	10.0
Drug abuse	8.6
Alcoholism	7.1
Depression	7.1
Neurosis	7.1
Personality disorder	7.1
Sleep disturbance	4.3
Psychosocial problems	
Unspecified	5.7
Marital problems	2.9
Skin problems	15.7
Vague complaints	10.0
Pain or painful conditions	10.0
Arthritis	5.7
Chronic disease	
Unspecified	5.7
Asthma	4.3
Diabetes	4.3
Complex or multiple problems	4.3
General distress of the patient	7.1
Urinary tract infection or cystitis	4.3
Other	31.4

n = total number of respondents.

Ten doctors felt that some sort of communication problem, such as a language barrier, was related to discomfort when prescribing and six doctors mentioned difficulties arising from consultations or pressure from third parties.

Thirty one doctors (44.3%) reported that they incurred discomfort when they felt they were prescribing to preserve the doctor–patient relationship. This was described in terms of avoiding litigation or complaints (12 doctors); avoiding damage to the doctor–patient relationship (eight); 'avoiding conflict' (six); and 'keeping the peace' (two). Six doctors mentioned

prescribing in order to avoid other forms of hostile or critical response including one who was worried about the possibility of physical assault by a patient.

Doctor factors associated with discomfort among prescribers

Some discomfort experienced by doctors when prescribing related to their concerns about drugs (Table 3). The most common source of concern was the possible side effects of drugs, followed by the cost of drugs. Other concerns included worry about serious adverse drug reactions (one doctor); contraindications (one); when to monitor (one); correct dosages (two); the risk of masking serious illness (two); risk factors for side effects (two); worries about bio-equivalence (two); worries about contamination (one); and whether the formulation would be acceptable to the patient (one).

Doctors had many expectations of themselves which made it difficult to refuse patients a prescription no matter how inappropriate the request. Some felt a need to do something (12 doctors, 17.1%); a need to give something (nine); a need to convey compassion (nine); a need to respond to the suffering of the patient (five); and a need not to convey to the patient any feeling of rejection (four). Feelings of impotence in the face of patient suffering were also said by five doctors to result in discomfort. On the other hand, three doctors commented that they liked to be in control of their patients. They did not like being told what to do (two doctors), nor did they like the patient taking matters into their own hands and deciding their own treatment (three). Doctors were discomforted by certain roles the patients tended to thrust on them such as the role of 'shop-keeper' (one doctor) or of 'scribe' (three).

The doctors' perception of their role was quite often expressed as internal rules by which they wished to live (48 doctors, 68.6%). Discomfort associated with prescribing followed when such rules were broken which was inevitable as often the rules were mutually contradictory. Likewise, 26 doctors (37.1%) identified attitudes they held which contributed to their discomfort when prescribing. These, too, were often mutually contradictory. Among personal attributes mentioned by doctors, a lack of self confidence was the commonest to be related to discomfort when prescribing (eight doctors). Other doctors recognized deficiencies within themselves as contributing to discomfort such as having difficulties with 'no-win' situations (three doctors) and in handling uncertainty (eight).

A small number of doctors recognized that prescriptions could serve functions other than their pharmacological one and that this fact could contribute to discomfort. Thus, eight doctors mentioned the use of prescribing to 'get rid of the patient'. Other uses to which it could be put included as a 'bargaining chip' (one doctor); to encourage other behaviour by the patient (one); and to avoid giving something else or as the lesser of two evils (three).

Fifteen doctors (21.4%) mentioned uncertainty about the diagnosis while five saw the difficulty as relating to logistic problems of carrying out investigations in general practice. Six doctors attested to the fact that often it was not possible to make a diagnosis, even if investigation were possible. Eighteen (25.7%) mentioned uncertainty about the management of the clinical problem as contributing generally to discomfort when prescribing.

In addition to influences from within themselves doctors described the influence of their peers on both their prescribing behaviour and on their discomfort relating to this. Thus, 12 doctors (17.1%) admitted to prescribing because they did not want to appear critical of peers, interfere with their management (10 doctors), or mar good relations with them (two). They were uncomfortable about their prescribing if they felt this would make them look less competent to their peers (seven doctors), if it was in breech of an agreed or understood management policy (seven), or if they feared it might create work for their peers (six). Discomfort sometimes arose from their reading in the medical journals or Committee of Safety of Medicines literature about what they ought or ought not to be doing (nine doctors). The prescribing of hospital doctors was seen by seven doctors to be especially difficult to alter. Hospital initiated prescribing was sometimes suspected of being motivated by a desire to cut hospital drug costs at the expense of general practice (three doctors). Hospital doctors were also perceived as not understanding general practice (six doctors), being poor communicators (four), and occasionally failing to fulfil the purpose desired of them by the general practitioner (two). Finally, doctors were aware of the possibility of being influenced by drug companies and were particularly keen to be seen by their peers to be above this influence (three doctors mentioned this).

A number of logistic factors were mentioned by doctors as resulting in discomfort when prescribing. Of these the commonest, mentioned by 34 doctors (48.6%), was lack of time. In addition, 14 doctors (20.0%) mentioned particular times of the day or particular times of the week that caused more discomfort. These included Friday nights, Saturday mornings and at the end of the day. The end of any surgery was also perceived

Table 2. Words used by the 70 doctors to describe patients associated with discomfort when prescribing.

Descriptive word/phrase	No. of doctors using word/phrase
Aggressive	11
Demanding	10
Manipulative or controlling	10
Patient unable to cope	5
Wants money's worth	2
Cannot be reasoned with	2
Addictive personality	1
Difficult	1
Domineering	1
Moaners, groaners, and seekers of compensation	1
Too assertive	1
Uncooperative	1
Unpredictable	1
Volatile	1

Table 3. Concerns about drugs resulting in discomfort for doctors when prescribing.

Source of concern	% of doctors mentioning source of concern ($n = 70$)
Side effects	*51.4*
Cost	*41.4*
Risk of dependence	*40.0*
Appropriateness/necessity	*24.3*
Antibiotic resistance	*17.1*
Efficacy	*15.7*
Interactions/polypharmacy	*12.9*
Risk of overdose	*11.4*
Worry about the patient selling drugs illicitly	*5.7*
Non-compliance	*4.3*
Other	*18.6*

n = total number of respondents.

as a difficult time, as was out of hours work. Seventeen doctors (24.3%) mentioned discomfort being related to their own physical or mental conditions, such as feeling tired or depressed, at the time of the patient consulting. Other logistic difficulties included lack of information (22 doctors); lack of treatment alternatives (nine); and difficulties relating to the use of computers (eight).

Twenty doctors (28.6%) felt their prescribing was influenced by a dramatic episode in their medical career, but not necessarily one in which they had been personally involved. As one doctor put it, there are 'certain landmarks that make you take stock and change direction'. Of the 25 episodes referred to, 14 were cases where a 'missed' diagnosis had led to death or serious illness in the patient, seven were adverse drug reactions and three related to the unexpected death of patients, not directly related to prescribing. In the remaining episode the doctor attributed a change in his attitude to the prescribing of antibiotics to recently having taken antibiotics for illness himself.

Discussion

Festinger has postulated that any decision involving the choice between two or more alternatives results in some 'cognitive dissonance'.[12] He has also observed how decision makers will employ a variety of psychological defences to suppress this dissonance. It seems probable that the discomfort described by prescribers in this study is a manifestation of cognitive dissonance. The discomfort arises when the number of factors influencing the decision is greater than usual, when the promoting and inhibiting influences are finely balanced or, most likely, when both of these arise. Thus, while it cannot be proven that the factors identified in respect of uncomfortable prescribing are the same as those which operate in all prescribing decisions, this is at least a reasonable hypothesis worthy of further testing. The results of this study point to the number, range and nature of the factors requiring further study, and support Howie's hypothesis that clinical and social considerations interact in the decision making processes of doctors deciding whether or not to prescribe.[2] Furthermore, the results provide evidence that this interaction occurs across the entire range of clinical problems and therapeutic interventions. If the techniques of formal decision analysis[13] are to be applied to the general practitioner's prescribing decisions, social influences, such as the perceived risks of damage to the doctor–patient relationship by declining a prescription, should be considered as well as the clinical benefits and risks of therapy.

It may be argued that the factors identified in this study are only those perceived by doctors as influencing their decision making and to which they are prepared to admit. While this is undoubtedly true, this study has gone further than previous attempts to understand the non-pharmacological influences on prescribing.[2,3,14] Furthermore, the other part of this study, which looked at individual prescribing decisions,[15] broadly supports the doctors' assertions regarding the factors that made for difficulties in prescribing decisions and this fact strengthens the conclusion about the importance of social and logistic influences on prescribing decisions.

There have been a number of government interventions to try to control or alter the prescribing behaviour of general practitioners. Many of these seem to be based on the assumption that prescribing identified as 'inappropriate' results, largely, from ignorance on the part of doctors. While it cannot be denied that ignorance plays a part, this study shows that doctors are already aware, often uncomfortably aware, of considerations of safety, efficacy, appropriateness and cost of drugs. This suggests that interventions to deal with the social and logistic influences on the prescribing decision may be at least as effective, and possibly more effective, in improving the quality of prescribing. For example, given the influence of negative feelings towards the patient, interventions to deal with difficult patients such as those suggested by Corney and colleagues[16] and O'Dowd[11] ought to be expected to have a measurable effect on prescribing. Similarly, the use of strategies to deal with uncertainty, such as those proposed by Thompson,[17] might be expected to result in changes in prescribing behaviour. The findings that doctors have difficulties in dealing with the consequences for the doctor–patient relationship of refusing a prescription and have other communication difficulties that adversely affect prescribing suggests the need for additional training in communication skills.

One must be wary of oversimplistic solutions. For example, in relation to the problem of lack of time, the solution may not be as simple as allowing more time per consultation, as there is evidence from several studies that this may lead to more rather than less prescribing.[18,19] Recent work from the Netherlands[20] and Scotland[21] suggests that doctors have innate 'styles' of practice and that how they use their time in relation to that 'style' may be a determinant of the quality of care they manage to deliver. Thus, in relation to the quality of prescribing decisions, the doctor's capacity to deal with the social pressures to prescribe may be affected by his or her use of time generally within the consultation. As we do not yet have a full understanding of the determinants of doctors' 'styles' it is difficult to suggest an intervention. However, the findings of this study suggest that a change in how doctors use time would affect prescribing decisions.

Finally, it was interesting to note that medical misadventures can affect doctors' behaviour, certainly in respect of prescribing, many years after the event. While it is desirable that doctors learn from past mistakes freak events can cause abberations of behaviour. Perhaps doctors and other health care professionals could benefit from counselling and debriefing after such disasters so that their behaviour is not distorted when faced with similar situations subsequently.

While all analyses of prescribing data have disclosed evidence of drug usage that is pharmacologically illogical it is still improbable that doctors are being deliberately irrational. The problem for the doctor is that the criteria of 'rational' prescribing must be balanced against considerations of the patients' obvious suffering and the need to maintain a good doctor–patient relationship. Furthermore, doctors are often seeking to achieve this under considerable logistic difficulties. The task of improving prescribing is not an easy one. The results of this study suggest that it will not be achieved simply by bombarding doctors with more and more pharmacological information and exhortations to change the drugs they use.

Appendix. Interview schedule.

1. Have you ever felt uncomfortable about a decision you have made regarding whether or not to prescribe for a patient?
2. What do you think gives rise to this discomfort?
3. Is it related to any particular drugs or drug groups?
4. Is it related to any particular medical conditions or problems presented by patients?
5. Are there any particular types of patient to whom you think it relates?
6. Is there anything about yourself that you think makes you particularly susceptible to this discomfort?

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